Headquarters U.S. Air Force

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USAF Aviation Safety: FY 2004 In Review

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Objectives

- Review FY04 USAF Life Sciences analyses
- Highlight upcoming AF Safety items
- Q&A

USAF Guidance: AFI 91-204

- **Definition - Mishap:**
  - **“1.3.1….unplanned occurrence, or series of occurrences, that results in damage or injury…”**
- **Definition – Reportable Damage or Injury:**
  - **“1.3.1.1….damage to DOD property…**
  - **“…occupational illness to DOD military personnel…**
  - **“…injury to DOD military personnel on- or off-duty…**
  - **“…injury to on-duty DOD civilian personnel…**
  - **“…damage to public or private property, injury to non-DOD personnel caused by Air Force operations.”**

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USAF Guidance: AFI 91-204

- **Definition – DOD Aircraft:**
  - **"All *manned* weight-carrying devices supported in flight by buoyancy or dynamic action and are *owned or leased* by the DOD components (including Reserve forces and the National Guard) that are as follows: operated and *exclusively controlled and directed* by a DOD component; *furnished by* the Government, loaned, or on bailment to a non-DOD organization for modification, maintenance, repair, test, contractor training, or experimental project for a DOD Component…**
  - **"(This includes aircraft furnished by a contractor or another Governmental agency *when operated by a DOD aircrew in official status* and a *DOD Form 250*, Material Inspection and Receiving Report, has been executed to certify that the Department of Defense has accepted the aircraft.)…**
  - **"*Excludes* aircraft leased, on bailment or loaned … when the lessee has assumed risk for loss. *Excludes* … contract air missions for the DOD components. *Excludes* factory new production aircraft until completion of the post-production acceptance flight (mishaps…will be reported as contractor mishaps). *Excludes* flying club and privately owned aircraft flying on DOD installations."**

USAF Guidance: AFI 91-204

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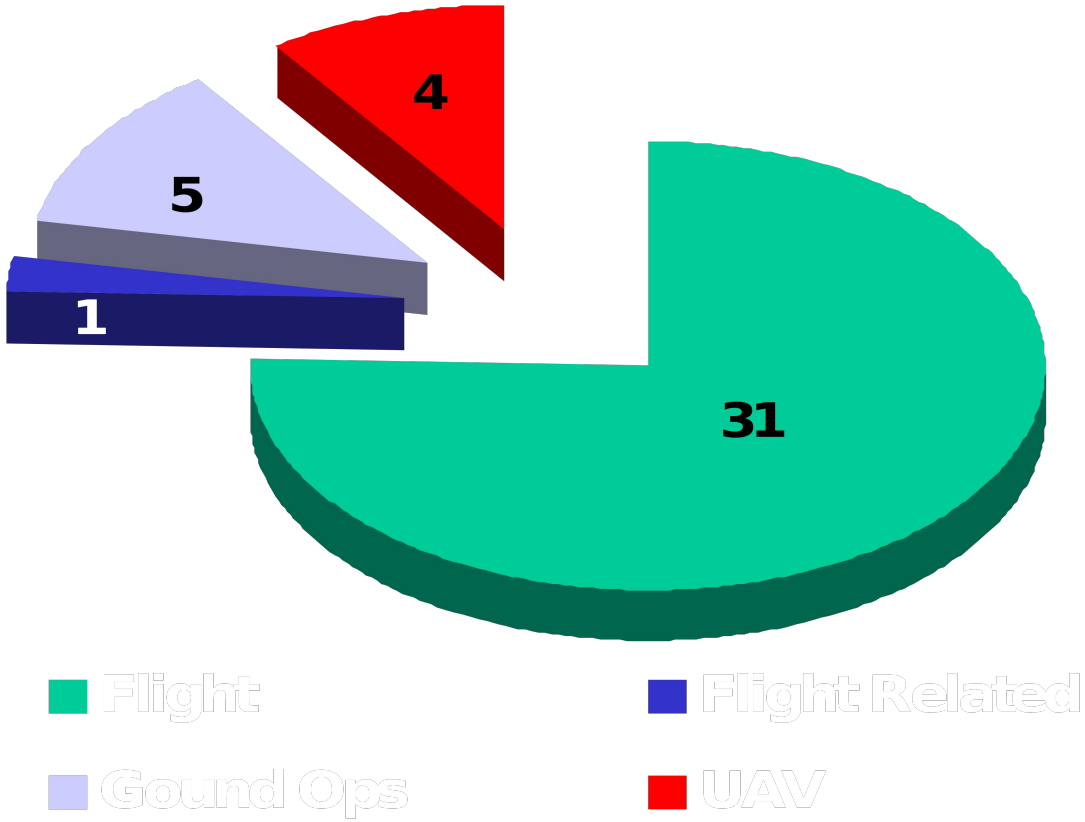
- **Aviation Mishap Categories:**
  - **Aircraft Flight:**
    - **"…intent for flight and reportable damage to a DOD aircraft."**
    - **The only rate-generating category**
  - **Aircraft Flight-Related: "…intent for flight and no reportable damage to the aircraft itself, but the mishap involves a fatality, reportable injury, or reportable property damage."**
  - **Aircraft Ground Operations: "…no intent for flight and which results in damage to a DOD aircraft, a fatality, reportable injury, or reportable property damage."**
  - **Unmanned Aerial Vehicle (UAV): "Any mishap involving a DOD UAV…, but not involving a DOD aircraft."**

Number of Aviation Class A Mishaps

FY03 by USAF Mishap Category



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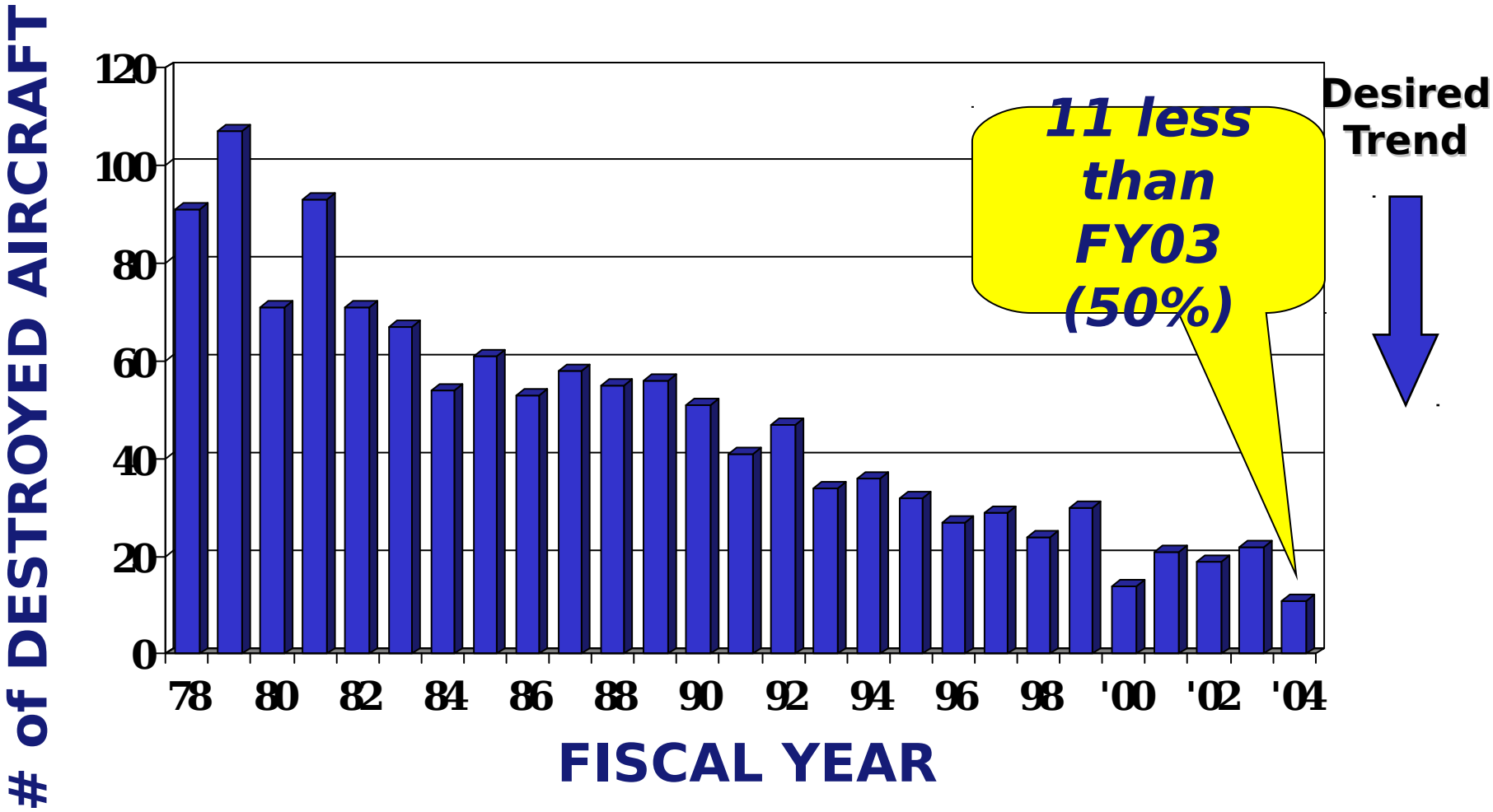
Trending Annual Number of Destroyed Aircraft in Rate Producing Class A's



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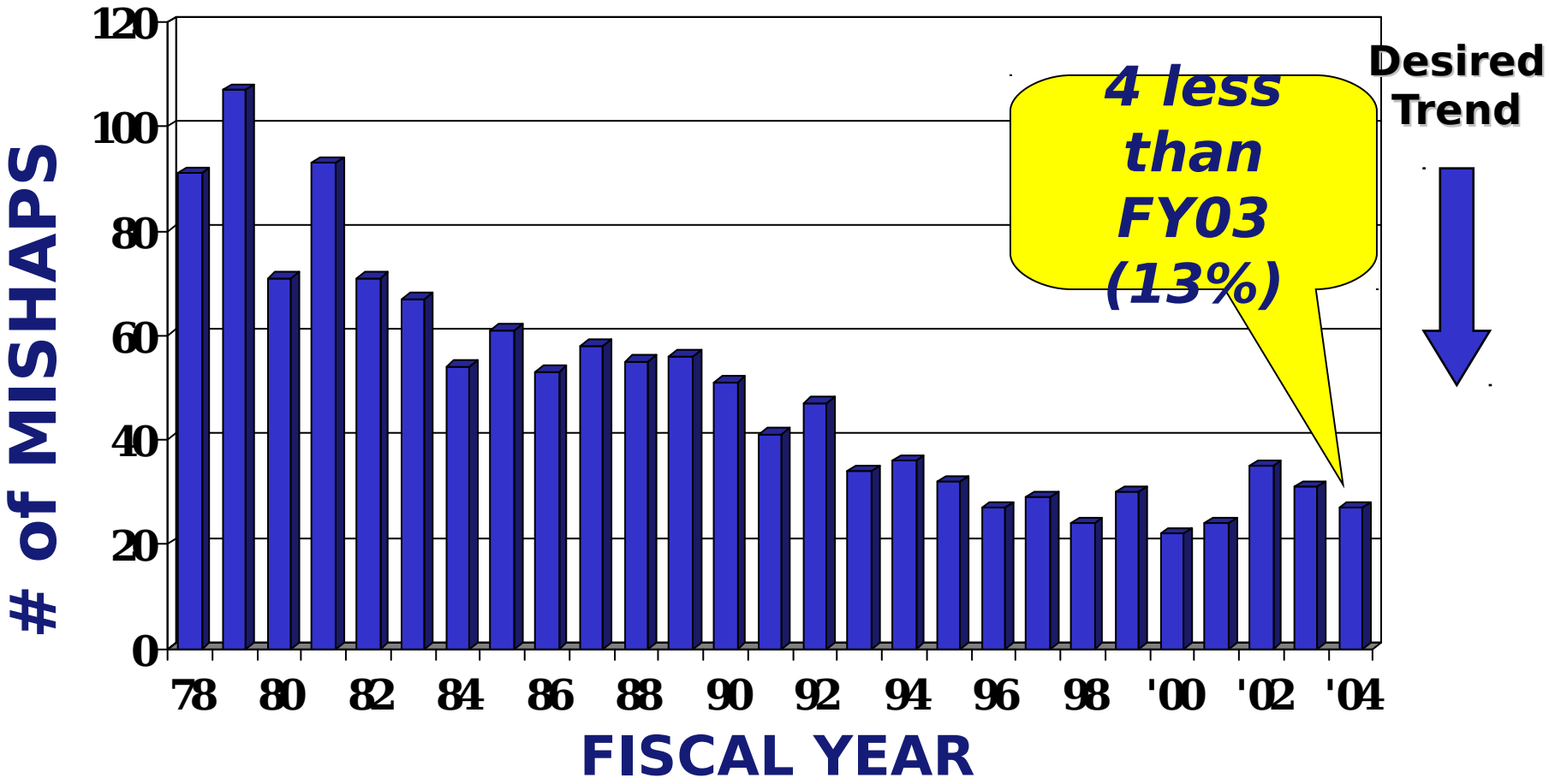
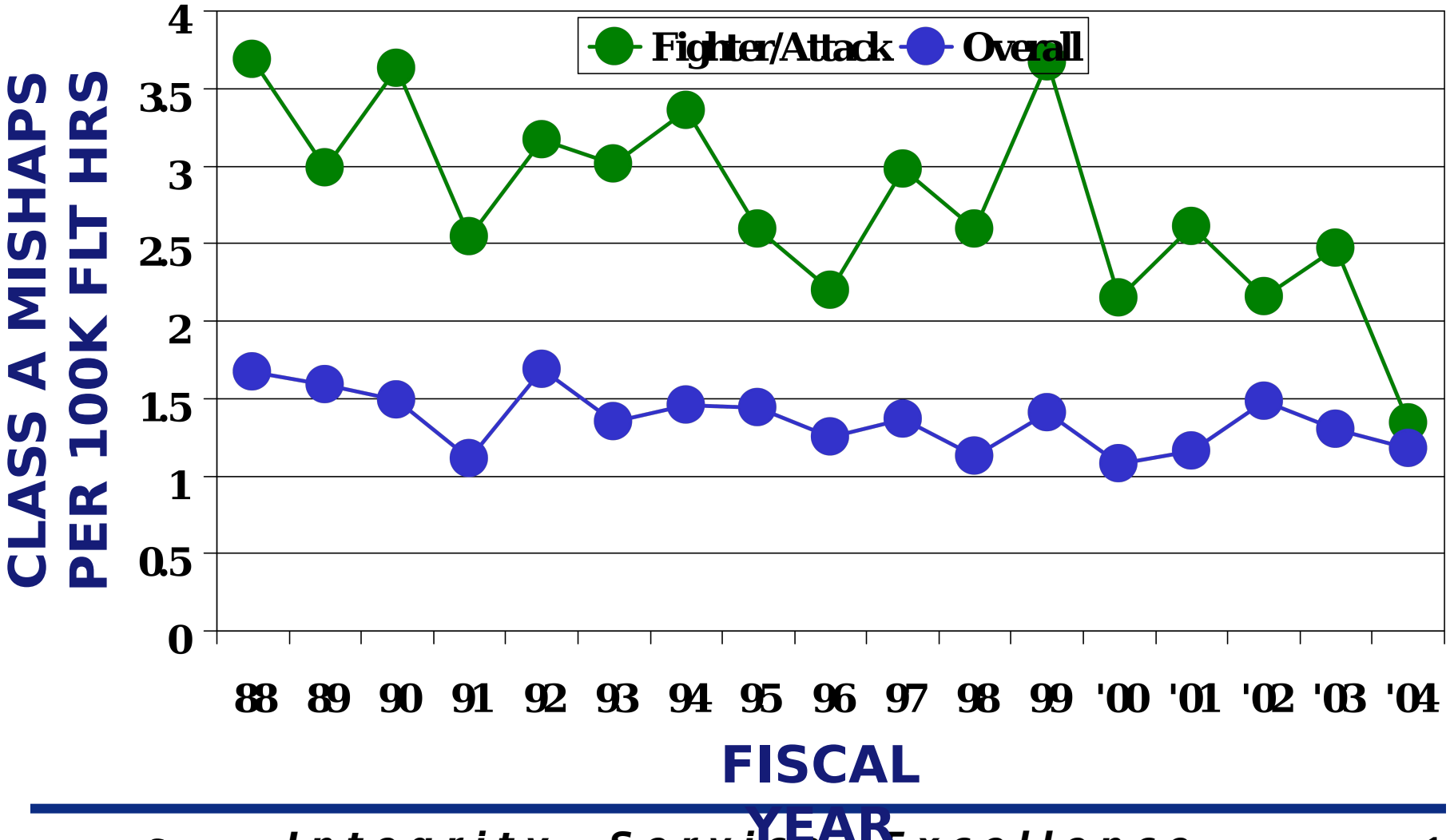
Trending Annual Number of Aviation Rate Producing Class A's ~~mishaps~~



Trending Annual Rates of Rate Producing Aviation Class A's



FY03 Percent of Number of Fatal Mishaps Attributed to HF

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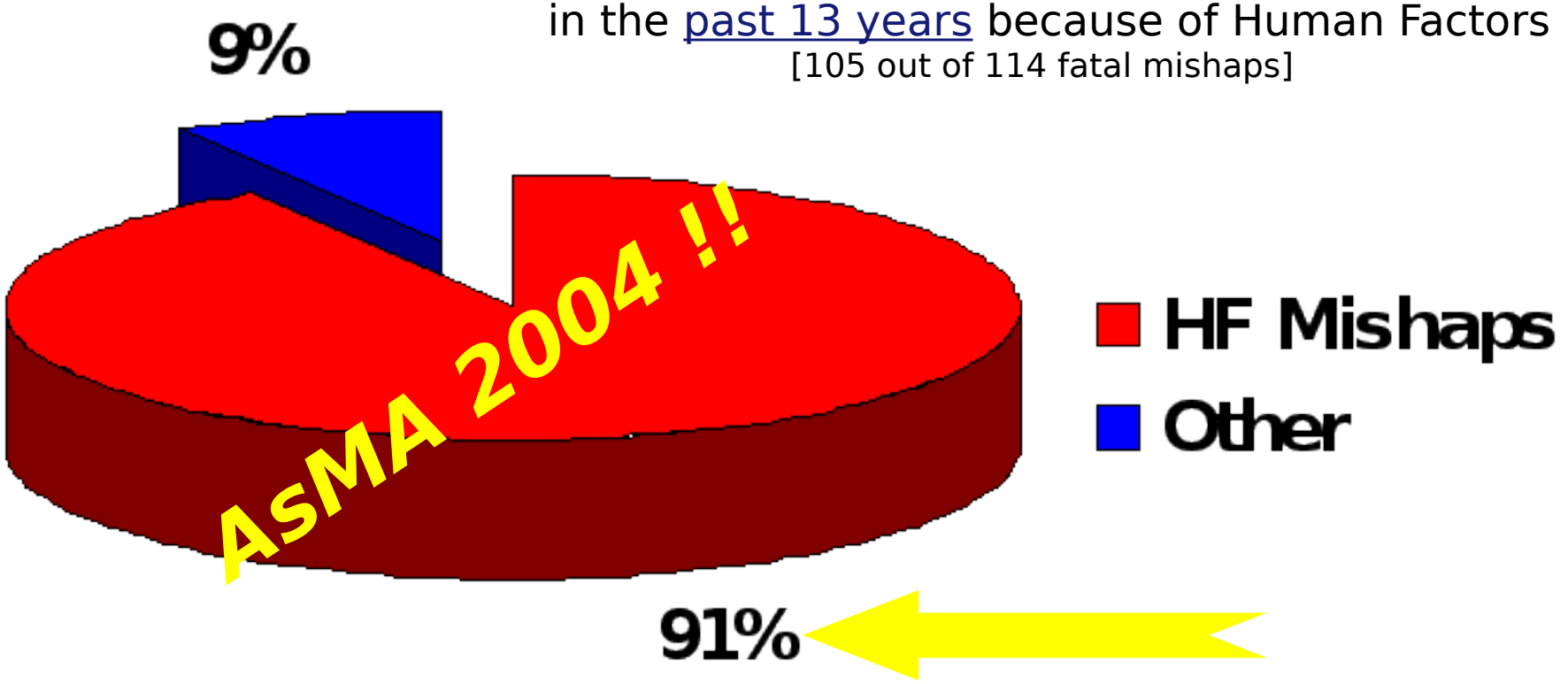
Over 90% of fatal aviation mishaps
in the past 13 years because of Human Factors
[105 out of 114 fatal mishaps]



FY '91 - '03

If it's red or dusty don't touch it

Cumulative Number of Fatal Mishaps Percent Attributed to HF (FY91-04)

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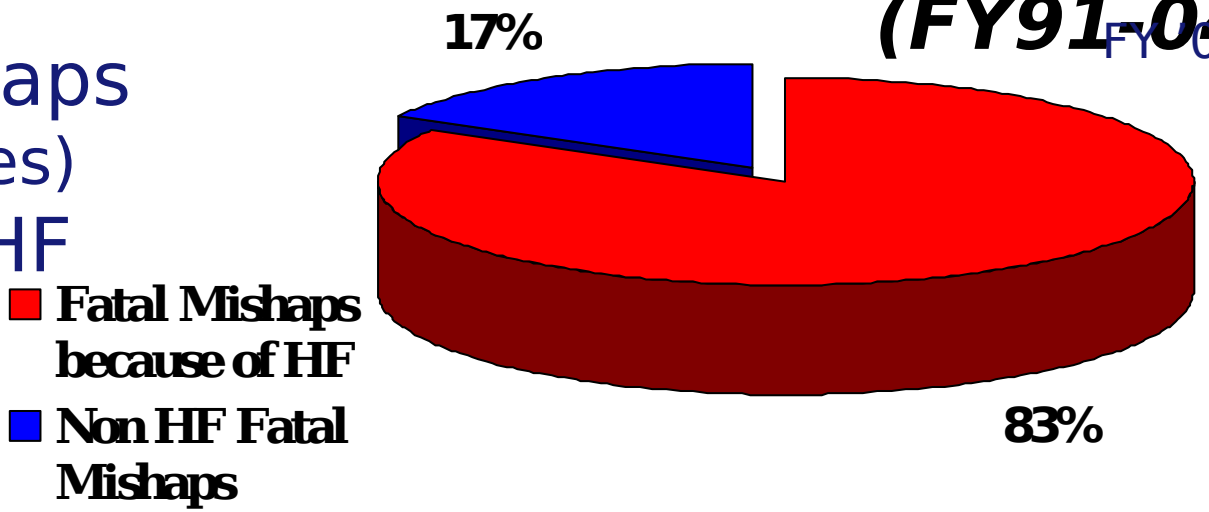
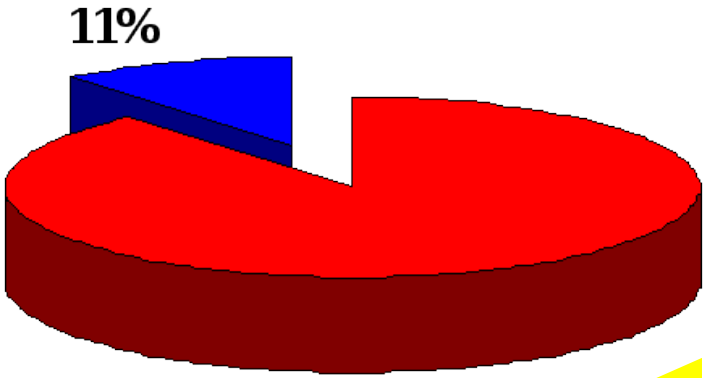
5/6 Fatal Mishaps
(10/15 Fatalities)
because of HF





FY '91 - '04

89% of fatal aviation mishaps
in the past 14 years because of Human Facto
[110 out of 120 fatal mishaps]

HF Mishaps
Other

FY04 Rate-Producing Class A's Attributed to "Major" or "Causal" Human Factors

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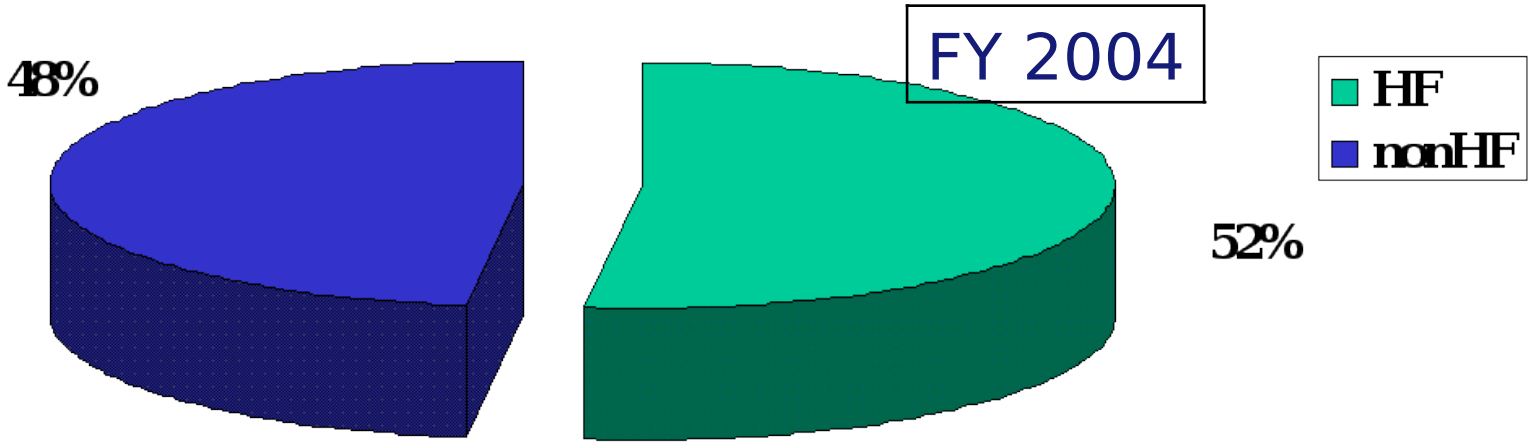
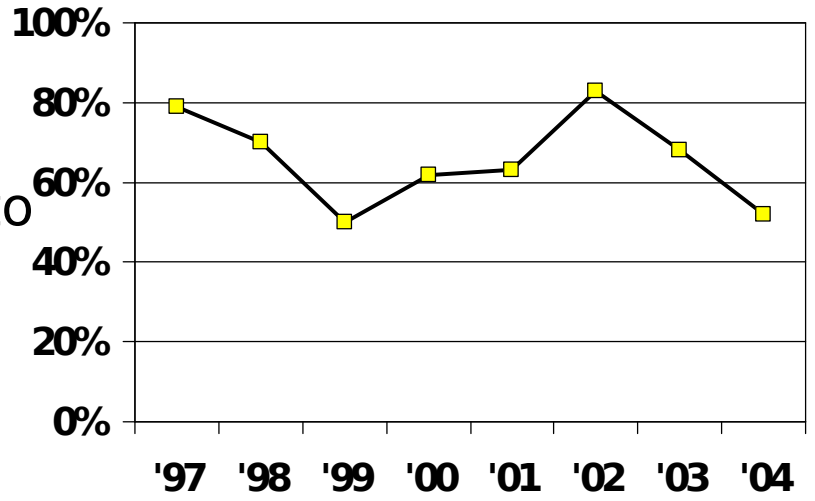


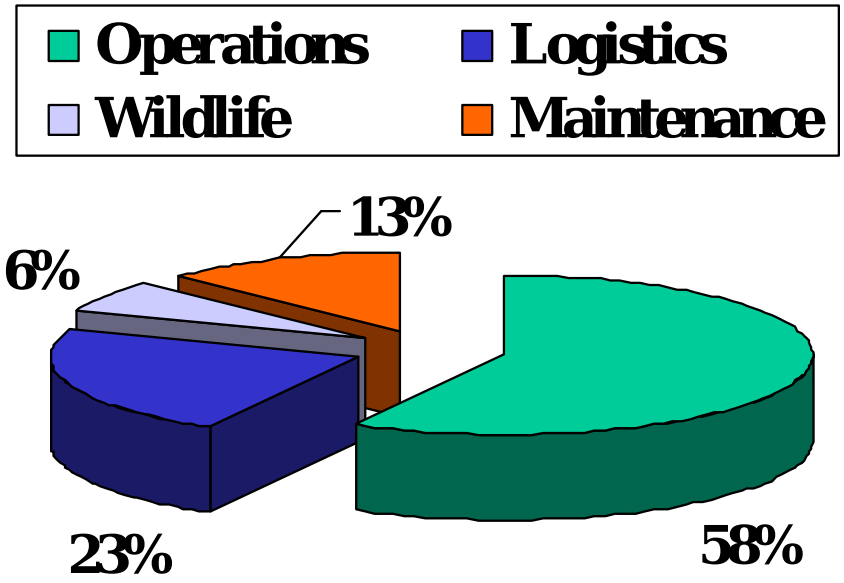
Annual Percent of Mishaps Attributed to Major or Causal Human Factors



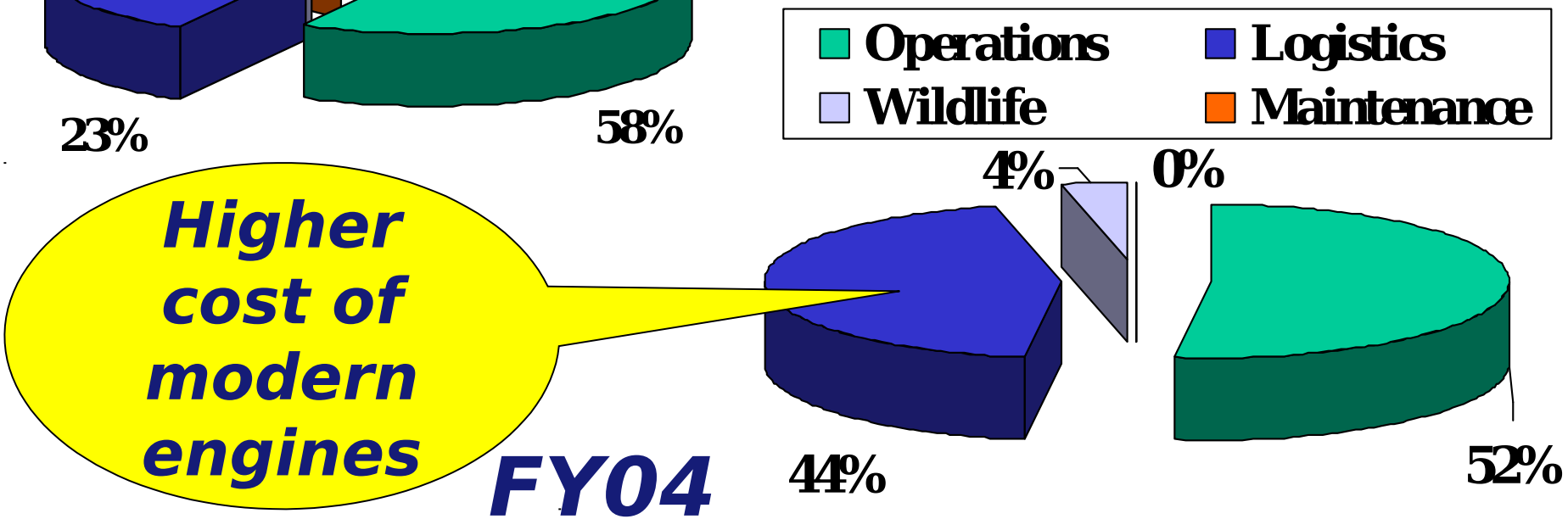
FY03 & FY04 Class A Mishaps

Rate-Producing

FY03

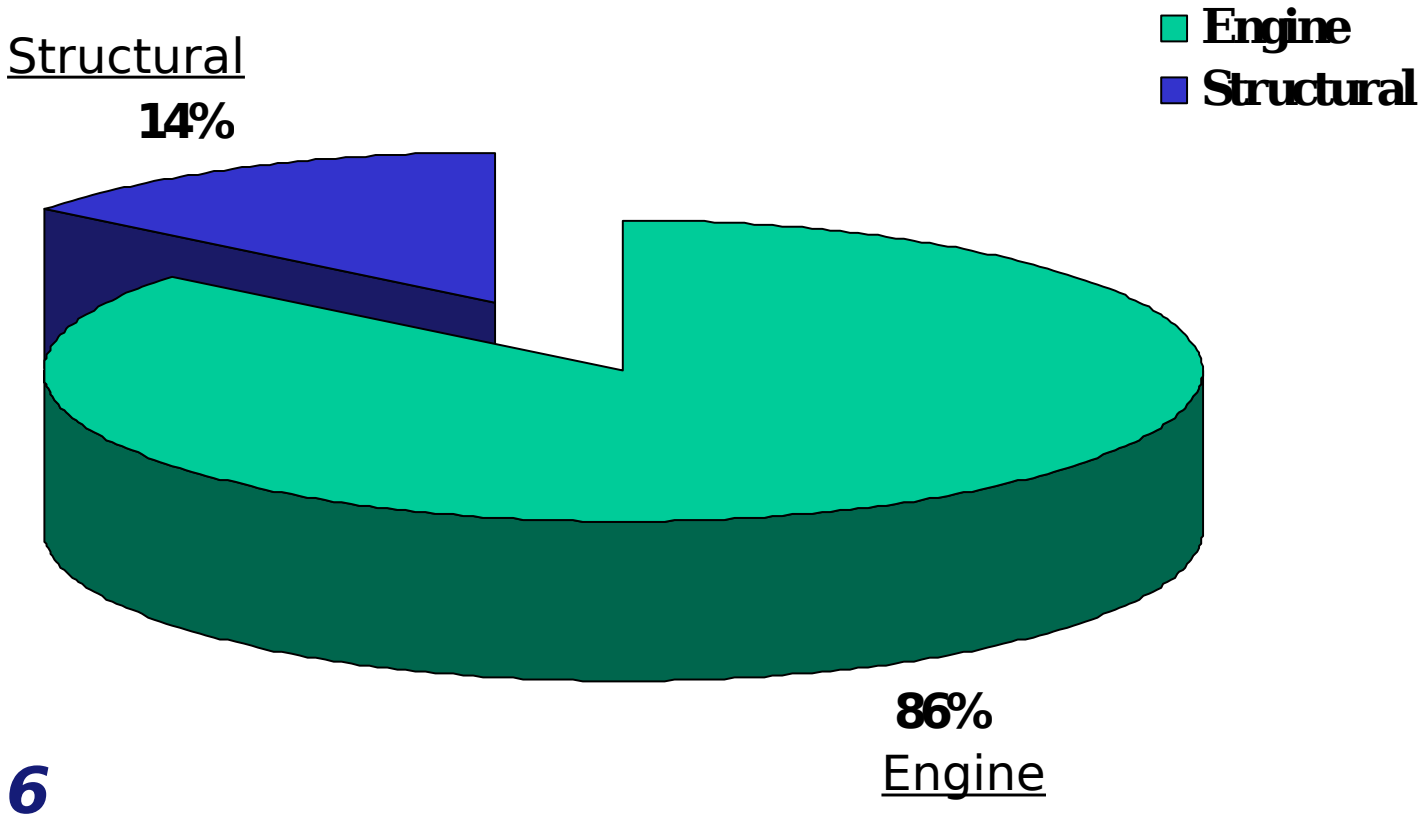


FY04



Logistics Causes

FY 04 Rate-Producing



FY 03: 6 Mishaps

FY04: 14 Mishaps

As of:

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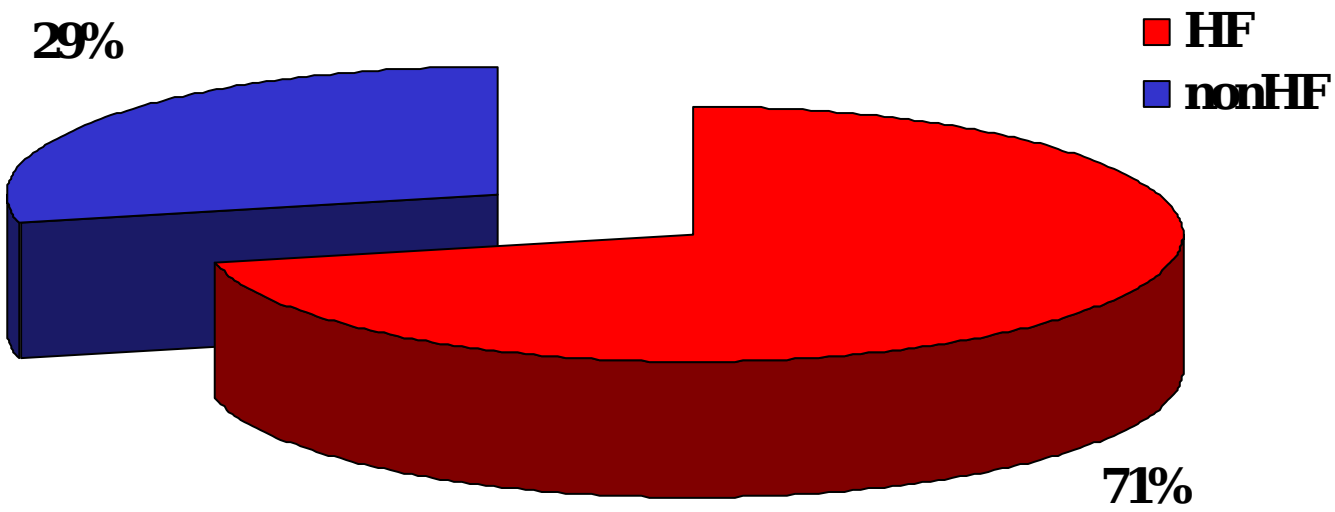
Contribution of Human Factors to FY04 Costs of Aviation Rate-Producing Class A's



HF Class A Cost (FY04): $187,215,514.00

Total Cost of FY 04 Rate Producing Class A Mishaps: $261,892,992.00

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HF Take-Away's From FY04

- **Four (4) LESS Class A flight mishaps**
  - **27 vs. 31 (13%)**
  - **Class A rate DOWN (1.18 vs. 1.30 (12%) respectively)**
- **Destroyed aircraft**
  - **11 FEWER than FY03 (50% reduction!!)**
  - **6 FEWER destroyed due to HF (9 vs. 15, respectively)**
- **Total cost of HF mishaps down by almost 50%**
- **Emerging HF opportunities**
  - **Engine mishaps**
  - **A new TAXONOMY (DOD HFACS)**

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Questions?

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Back-Up Slides

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Comparison of Costs FY 02 thru FY 04

	‘04	‘03	‘02
Total Class A	27	31	35
Total Destroyed	11	22	19
Total Fatalities	14	10	22
Total Cost	$261,892,992	$ 485,621,080	$828,128,109
HF Class A	14	21	29
HF Destroyed	9	15	16
HF Fatalities	10	10	21
HF Cost	$187,215,514	$ 363,024,959	$ 784,267,009

Class A rate-producing mishaps

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USAF Four Year Averages

Numbers FY00 - FY03

Mishap Data	FY00	FY01	FY02	FY03	FY00-03 Averages
# Class A Flight Mishaps	23	24	35	31	28.3
# Class B Flight Mishaps	78	59	70	72	69.8
Flying Hours (Thousands)	2,037	2,067	2,364	2,233	2,175
Class A Flight Mishap Rate	1.13	1.16	1.48	1.39	1.30
Class B Flight Mishap Rate	3.83	2.85	2.96	3.22	3.21
# of USAF Destroyed Aircraft (no UAV)	14	21	20	22	19.25
All Fatalities	8	9	22	11	12.5
Flight, Class A - $ Loss ($M FY02)	289.3	390.6	833.5	472.2	496.4
Flight, Class B - $ Loss ($M FY02)	39.6	28.9	31.0	30.0	32.4
All, Class A - $ Loss ($M FY02) (no UAV)	299.1	394.3	870.7	562.6	531.7
All, Class B - $ Loss ($M FY02) (no UAV)	54.3	50.4	45.8	36.8	46.8